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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,370

06/30/2003

J. Helen Fitton

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08/18/2005

GRAYBEAL, JACKSON, HALEY LLP
155 - 108TH AVENUE NE
SUITE 350
BELLEVUE, WA 98004-5901

EXAMINER

MCCORMICK EWOLDT, SUSAN BETH

ART UNIT

PAPER NUMBER

1655

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,370

Applicant(s)

FITTON ET AL.

Examiner

S. B. McCormick-Ewoldt

Art Unit

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-18 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-18 is/are rejected.
- 7) ☐ Claim(s) 15,16 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

The amendments of May 23 and June 6, 2005 are hereby acknowledged.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims Pending

Applicant has cancelled claims 1-14 and 19-20. Claims 15-18 and 21 are pending.

Claim Objections

Claim 15 is objected to because of the following informalities: the term "galactofucan" is spelled two different ways in line 3. Appropriate correction is required.

Claims 16 and 21 are objected to because of the following informalities: the claims depend on an informal claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The rejections under 35 U.S.C. 112, second paragraph, are withdrawn in view of Applicant's response.

Claim Rejections - 35 USC § 103

Claims 17-18 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Funahashi *et al.* (JP 2002-20403).

The teaching of Funahashi *et al.* is relied upon for the reasons discussed in the previous office action. The reference teaches extracting galactose containing polysaccharides from the leaves (sporophylls) of wakame (common name for *Undaria pinnatifida*). The reference teaches that the polysaccharide has anti-viral properties. The reference does not teach using the sporophyll material itself in combination with additional polysaccharide. However, a person of ordinary skill in the art would reasonably expect that the crude sporophyll material would also contain anti-viral properties conveyed by the polysaccharide. Therefore, the artisan of ordinary

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skill would also reasonably expect that combining the crude sporophyll material with the extracted polysaccharide would produce a product with superior anti-viral properties in comparison with each product alone. Based on this reasonable expectation of success, a person of ordinary skill in the art would have been motivated to combine the extracted polysaccharide with sporophyll material.

Applicant argues the citation does not teach extraction of galactofucan sulfates from leaves of Wakame. This is not found persuasive. Applicant has disclosed in the specification (page 5, 2nd paragraph) that galactofucan sulfates “may be sourced from the whole plant or any part of the plant, such as the leaves, stems, spores or a combination thereof”.

This reference does not specifically teach adding the ingredients together in the amounts claimed by Applicant. The amount of a specific ingredient in a composition is clearly a result-effective parameter that a person of ordinary skill in the art would routinely optimize. This is recognized in the reference in paragraph 21 ([0021]). Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill to employ. It would have been customary for an artisan to determine the optimal amount of each ingredient to add in order to best achieve the desired results. Thus, absent some demonstration for unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of the Applicant's invention.

Summary

Claims 15-16 and 21 are free of the art because the prior art does not teach high molecular weight (i.e. 500,000 to 1,00,000 Daltons) galactofucan sulfates.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Susan B. McCormick-Ewoldt whose telephone number is (571) 272-0981. The Examiner can normally be reached Monday through Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Bruce Campell, can be reached on (571) 272-0974. The official fax number for the group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sbme

Susan D. Coe
8-15-05
SUSAN COE
PRIMARY EXAMINER